

Optional Features for Outdoor Learning Areas

Wastewater Treatment

Description –Students can learn about wastewater treatment by using the runoff from the school parking lot or roof to fill a rain garden. A rain garden is essentially a small wetland that is planted with flowering plants selected for their ability to have wet roots and obtain nutrients from the runoff. The rain garden allows storm water to percolate through the soil and enter the aquifer partially cleansed of contaminants. Rain gardens do not have standing water for more than a short period of time after a storm event.

Size – Rain Gardens may be as small as 3 feet in diameter and no more than a few inches deep. The drainage area (parking lot, lawn, street) from which the storm water is draining will determine the size of the garden.

Location – The Rain Garden should be located on the downhill slope of a drainage area that carries storm water.



Materials Needed – At most sites, the landscape generally has naturally sloping areas. Many bog and swamp plants will thrive in these areas. See your local nursery for suggestions.

Labor Needed – Preparing soil, sculpting soil so that runoff from parking areas drains into the rain garden.

Technical Assistance – Area Sanitation District offices and Solid Waste Management Services can help with the design of this area and follow-up field trips for students to see the entire wastewater process. See <http://www.infinetivity.com/~stack/rain/> for details of how to build a rain garden as well as answers to commonly asked questions.

Maintenance – It may be necessary to add water during extreme drought. Occasional replacement of plants and removal of debris or excess soil is recommended.

Challenges – Safety precautions for handling wastewater should be followed. There may be some concern over mosquitoes. Some areas are not large enough for all students to gather around the Rain Garden.